

## UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 7 11201 Renner Boulevard Lenexa, Kansas 66219

November 14, 2014

## **MEMORANDUM**

Subject: NTW work product: Minimizing and Managing Potential Impacts of

Injection-Induced Seismicity from Class II Disposal Wells: Practical

**Approaches** 

From: Kurt Hildebrandt, Former Chair Kund F. Ustalland

National Technical Workgroup

EPA Region 7

To: Ronald Bergman, Acting Director

**Drinking Water Protection Division** 

Office of Ground Water and Drinking Water

I am pleased to transmit a revised final version of the Underground Injection Control Program National Technical Workgroup (NTW) Project Topic # 2011-3 - Minimizing and Managing Potential Impacts of Injection-Induced Seismicity from Class II Disposal Wells: Practical Approaches. This work product completes the NTW assignment authorized on July 20, 2011, by Ann Codrington, Director, Drinking Water Protection Division, Office of Ground Water and Drinking Water.

The original final work product (report) had been reviewed and approved by a majority of the NTW membership back in late December of 2013 and was forwarded to you in January of this year. In the time period since then, the report was sent out for external peer review at the direction of EPA's Office of Ground Water and Drinking Water (OGWDW). This external group was comprised of six technical and/or subject matter experts from academia, researchers, and industry who were asked to provide feedback on the report. A summary of those comments can be found in Appendix N of the report.

After OGWDW received the comments from the external peer reviewers', a new EPA comment review team was formed at your request to assess those comments. The EPA comment review team consisted of Region 6 staff, myself, and two representatives of OGWDW. We carefully considered the comments provided by the external peer reviewers relative to each topic. When appropriate, we made the associated edits required to incorporate them into the report. The approach used by us in the assessment of the external peer reviewer's comments can be found in the revised report starting on page six. The changes that were made did not alter the recommendations contained in the report.

Additionally, OGWDW and the Regional UIC managers decided early on that NTW should conduct another review of the revised repot once it had incorporated the external peer review comments to ensure that it still reflected the opinion of the NTW. The updated version of the report was sent out to the NTW on September 23, 2014 and the group was given until October 10, 2014 to provide their vote. The NTW members were also asked to provide feedback on Appendix O of the report. This appendix contains the comments that were received from the external review panel which were not incorporated into the report and our responses as to why those comments were not incorporated into the final report.

At around the same time that the report was being reviewed by the NTW, it was also sent out to a technical editor who was tasked to correct any grammatical mistakes, misspellings, mistyping or incorrect punctuation and to ensure the consistent usage of terms. This was done in an effort to expedite the process and any changes that were suggested by the technical editor and ultimately incorporated into the report did not alter the overall content or recommendations contained in the report.

Of the seventeen NTW members (All EPA Regional Offices, Headquarters and six States), only two regions and two states abstained from voting and all other members voted to approve the report. One of the states who had abstained from voting did so because they felt they lacked the expertise to comment on it, while the other state was supportive of the paper but had not been on the NTW when the original version of the report was sent out for review by the NTW and didn't feel comfortable providing a vote on this version of the report. Of the EPA members who abstained from providing a vote, one did so because they did not have enough time to review the document, while the other decided to abstain rather than objecting to paper as they had in the voting on the original paper.

Upon your acceptance of this work product, the NTW would appreciate your distribution of this report to each of the EPA Regions and to the Ground Water Protection Council for them to provide copies to their State members. As with the original version of the report, it is important to note that the approaches contained in the report are not required but simply provide a tool to assist regional or state UIC programs in determining what things may be appropriate when attempting to minimize and/or manage the potential impacts of injection-induced seismicity related to Class II Disposal wells. If you have any questions concerning this work product, please contact me at (913) 551-7413 or Philip Dellinger in Region 6 at (214) 665-8324.

cc: Holly Green Regional UIC Program Managers NTW members